



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|-----------------------------|------------------------|
| 10/017,398 | 12/18/2001 | Senthil Sengodan | 005288.00014 | 8170 |
| 22907 7590 02/27/2008 BANNER & WITCOFF, LTD. 1100 13th STREET, N.W. SUITE 1200 WASHINGTON, DC 20005-4051 | | | EXAMINER MATTIS, JASON E | |
| | | | ART UNIT 2616 | PAPER NUMBER |
| | | | MAIL DATE 02/27/2008 | DELIVERY MODE PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/017,398

Applicant(s)

SENGODAN, SENTHIL

Examiner

Jason E. Mattis

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/12/07.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-14, 28, 31, 32, 35-37 and 39-51 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8-14, 28, 31, 32, 35-37 and 39-51 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is in response to the Request for Continued Examination filed 2/12/07. Claims 8-14, 28, 31, 32, 35-37, and 39-51

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 8-14, 28, 31, 32, 35, 36, and 39-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bertrand et al. (U.S. Pat. 6687252 B1) in view of Takeda et al. (U.S. Publication US 2001/0048686 A1) and in further view of Applicant's admitted prior (as found in the Applicant's specification).

With respect to claims 8, 32, 40, and 49, Bertrand et al. discloses a method in a computer server apparatus executing stored instructions (**See column 4 line 31 to column 5 line 3 and Figure 1 of Bertrand et al. for reference to a method for dynamically allocating IP addresses to mobile terminals in a GPRS network including an SGSN, which is a server apparatus executing stored instructions**). Bertrand et al. also discloses receiving an Activate PDP Context Request message at a

SGSN from a mobile station (**See column 5 lines 4-15 and Figure 1 of Bertrand et al. for reference to a mobile terminal (MT), which is a mobile station, sending an Activate PDP Context Request message to a SGSN**). Bertrand et al. further discloses sending an Activate PDP Context Accept message to the mobile station containing information assigning an address to the mobile station (**See column 5 lines 52-67 of Bertrand et al. for reference to the SGSN providing the assigned IP address to the mobile terminal using an Activate PDP Context Accept message**). Bertrand et al. does not disclose that the Activate PDP Context Request message and the Create PDP Context Request message have an APN field containing information that explicitly indicates requesting either a private network address or a public network address. Bertrand et al. also does not disclose that the public network address or private network address is assigned based on the information contained in the APN field of the Create PDP Context Request message.

With respect to claims 28, 47, and 48, Bertrand et al. discloses a method in a computer server apparatus executing stored instructions (**See column 4 line 31 to column 5 line 3 and Figure 1 of Bertrand et al. for reference to a method for dynamically allocating IP addresses to mobile terminals in a GPRS network including an SGSN, which is a server apparatus executing stored instructions**). Bertrand et al. also discloses receiving a Create PDP Context Request message from a SGSN at a GGSN (**See column 5 lines 4-15 and Figure 1 of Bertrand et al. for reference to the SGSN sending a Create PDP Context Request message to a GGSN**). Bertrand et al. further discloses assigning one of a private network address

and a public network address to the mobile station and sending a Create PDP Context Response message from the GGSN to the SGSN containing the information assigning the address (**See the abstract and column 5 lines 16-67 of Bertrand et al. for reference to the GGSN assigning one of a public IP address or a private IP address to the mobile terminal in response to the Create PDP Context Request message and for reference to sending a Create PDP Context Response message from the GGSN to the SGSN containing information assigning the address).**

Bertrand et al. does not disclose that the Activate PDP Context Request message and the Create PDP Context Request message have an APN field containing information that explicitly indicates requesting either a private network address or a public network address. Bertrand et al. also does not disclose that the public network address or private network address is assigned based on the information contained in the APN field of the Create PDP Context Request message.

With respect to claim 31, Bertrand et al. discloses a method (See column 4 lines 31-37 and Figure 1 of Bertrand et al. for reference to a method for dynamically allocating IP addresses to mobile terminals in a GPRS network).

Bertrand et al. also discloses receiving a Create PDP Context Request message from a SGSN at a BG (**See column 5 lines 5-67 and Figure 1 of Bertrand et al. for reference to the SGSN sending a Create PDP Context Request message to a GGSN that forwards the message to a Radius server (RS), which is a BG, in response to the SGSN receiving the Activate PDP Context Request).** Bertrand et al. further discloses assigning one of a private network address and a public network

address to the mobile station and sending a Create PDP Context Response message from the BG to the SGSN containing the information assigning the address (**See the abstract and column 5 lines 16-67 of Bertrand et al. for reference to the RS assigning one of a public IP address or a private IP address to the mobile terminal in response to the Create PDP Context Request message and for reference to sending a Create PDP Context Response message from the RS through the GGSN to the SGSN containing information assigning the address).**

Bertrand et al. does not disclose that the Activate PDP Context Request message and the Create PDP Context Request message have an APN field containing information that explicitly indicates requesting either a private network address or a public network address. Bertrand et al. also does not disclose that the public network address or private network address is assigned based on the information contained in the APN field of the Create PDP Context Request message.

With respect to claim 39, Bertrand et al. discloses a method (See column 4 lines 31-37 and Figure 1 of Bertrand et al. for reference to a method for dynamically allocating IP addresses to mobile terminals in a GPRS network).

Bertrand et al. also discloses receiving an Activate PDP Context Request message at a SGSN from a mobile station (**See column 5 lines 4-15 and Figure 1 of Bertrand et al. for reference to a mobile terminal (MT), which is a mobile station, sending an Activate PDP Context Request message to a SGSN).** Bertrand et al. further discloses sending an Activate PDP Context Accept message to the mobile station containing information assigning an address to the mobile station (**See column 5 lines**

52-67 of Bertrand et al. for reference to the SGSN providing the assigned IP address to the mobile terminal using an Activate PDP Context Accept message).

Bertrand et al. does not disclose that the Activate PDP Context Request message and the Create PDP Context Request message have an APN field containing information that explicitly indicates requesting either a private network address or a public network address. Bertrand et al. also does not disclose that the public network address or private network address is assigned based on the information contained in the APN field of the Create PDP Context Request message.

With respect to claims 9 and 41, Bertrand et al. discloses sending a Create PDP Context Request message form the SGSN to a GGSN (See column 5 lines 4-15 and Figure 1 of Bertrand et al. for reference to the SGSN sending a Create PDP Context Request message to a GGSN in response to the SGSN receiving the Activate PDP Context Request). Bertrand et al. also discloses receiving a Create PDP Context Response message from the GGSN containing information assigning an address **(See the abstract and column 5 lines 16-67 of Bertrand et al. for reference to sending a Create PDP Context Response message from the GGSN to the SGSN containing information assigning the address).** Bertrand et al. does not disclose that the Activate PDP Context Request message and the Create PDP Context Request message have an APN field containing information that explicitly indicates requesting either a private network address or a public network address. Bertrand et al. also does not disclose that the public network address or private network address is assigned

based on the information contained in the APN field of the Create PDP Context Request message.

With respect to claim 10, Bertrand et al. further discloses the SGSN sending a Create PDP Context Request message to a Gateway GPRS Support Node (GGSN) in response to the Activate PDP Context Request (See column 5 lines 4-15 and Figure 1 of Bertrand et al. for reference to the SGSN sending a Create PDP Context Request message to a GGSN in response to the SGSN receiving the Activate PDP Context Request). Bertrand et al. also discloses the GGSN assigning one of a private network address and a public network address to the mobile station in response to the Create PDP Context Request message and sending a Create PDP Context Response message from the GGSN to the SGSN containing the information assigning the address to the mobile station (See the abstract and column 5 lines 16-67 of Bertrand et al. for reference to the GGSN assigning one of a public IP address or a private IP address to the mobile terminal in response to the Create PDP Context Request message and for reference to sending a Create PDP Context Response message from the GGSN to the SGSN containing information assigning the address).

Bertrand et al. does not disclose that the Activate PDP Context Request message and the Create PDP Context Request message have an APN field containing information that explicitly indicates requesting either a private network address or a public network address. Bertrand et al. also does not disclose that the public network address or private network address is assigned based on the information contained in the APN field of the Create PDP Context Request message.

With respect to claims 11 and 42, Bertrand et al. discloses the SGSN sending a Create PDP Context Request message to a Border Gateway (BG) in response to the Activate PDP Context Request (**See column 5 lines 5-67 and Figure 1 of Bertrand et al. for reference to the SGSN sending a Create PDP Context Request messages to a GGSN that forwards the message to a Radius server (RS), which is a BG, in response to the SGSN receiving the Activate PDP Context Request**). Bertrand et al. also discloses sending a Create PDP Context Response message from the BG to the SGSN containing the information assigning the address to the mobile station (**See the abstract and column 5 lines 16-67 of Bertrand et al. for reference to sending a Create PDP Context Response message from the RS through the GGSN to the SGSN containing information assigning the address**). Bertrand et al. does not disclose that the Activate PDP Context Request message and the Create PDP Context Request message have an APN field containing information that explicitly indicates requesting either a private network address or a public network address. Bertrand et al. also does not disclose that the public network address or private network address is assigned based on the information contained in the APN field of the Create PDP Context Request message.

With respect to claim 12, Bertrand et al. discloses the SGSN sending a Create PDP Context Request message to a Border Gateway (BG) in response to the Activate PDP Context Request (**See column 5 lines 5-67 and Figure 1 of Bertrand et al. for reference to the SGSN sending a Create PDP Context Request messages to a GGSN that forwards the message to a Radius server (RS), which is a BG, in**

response to the SGSN receiving the Activate PDP Context Request). Bertrand et al. also discloses the BG assigning one of a private network address and a public network address to the mobile station in response to the Create PDP Context Request message and sending a Create PDP Context Response message from the BG to the SGSN containing the information assigning the address to the mobile station **(See the abstract and column 5 lines 16-67 of Bertrand et al. for reference to the RS assigning one of a public IP address or a private IP address to the mobile terminal in response to the Create PDP Context Request message and for reference to sending a Create PDP Context Response message from the RS through the GGSN to the SGSN containing information assigning the address).** Bertrand et al. does not disclose that the Activate PDP Context Request message and the Create PDP Context Request message have an APN field containing information that explicitly indicates requesting either a private network address or a public network address. Bertrand et al. also does not disclose that the public network address or private network address is assigned based on the information contained in the APN field of the Create PDP Context Request message.

With respect to claim 14, Bertrand et al. does not disclose that the Activate PDP Context Accept message contains address assignment information based on the information contained in the APN field of the Activate PDP Context Request message.

With respect to claim 46, Bertrand et al. does not disclose that the information comprises one or more parameters that explicitly indicate requesting either a private network address or address to be assigned to the mobile station.

With respect to claim 51, Bertrand et al. discloses a system comprising an SGSN configured to send a Create PDP Context Request to a GGSN of a network (See column 5 lines 4-15 and Figure 1 of Bertrand et al. for reference to an SGSN sending a Create PDP Context Request message to a GGSN in response to the SGSN receiving the Activate PDP Context Request). Bertrand et al. also discloses a GGSN configured to send the Create PDP Context Request message to a BG See column 5 lines 5-67 and Figure 1 of Bertrand et al. for reference to the GGSN forwarding the Create PDP Context Request message to a Radius server (RS), which is a BG). Bertrand et al. further discloses sending a Create PDP Context Response message containing the information assigning the address to the mobile station from the BG to the GGSN and from the GGSN to the SGSN (See the abstract and column 5 lines 16-67 of Bertrand et al. for reference to sending a Create PDP Context Response message from the RS through the GGSN to the SGSN containing information assigning the address). Bertrand et al. does not disclose that the Activate PDP Context Request message and the Create PDP Context Request message have an APN field containing information that explicitly indicates requesting either a private network address or a public network address. Bertrand et al. also does not disclose that the public network address or private network address is assigned based on the information contained in the APN field of the Create PDP Context Request message.

With respect to claims 8-12, 14, 28, 31, 32, 39-42, 46-49, and 51, Takeda et al., in the field of communications, discloses an Activate PDP Context Request

message and a Create PDP Context Request message that have an APN field containing information that explicitly indicates requesting either a private network address or a public network address to be assigned to a mobile station (**See pages 2-3 paragraphs 26-27, page 5 paragraphs 71-72, pages 5-6 and 89-97, and Figure 5 of Takeda et al. for reference to an Activate PDP Context Request message and a Create PDP Context Request message that have an APN field containing information identifying a destination network gateway node, which is information explicitly indicating requesting either a private network address or a public network address since the destination network gateway is inherently either located within the private network of the mobile or a public network meaning the request is explicitly for the type of address needed to reach the destination node).** Using an Activate PDP Context Request message and a Create PDP Context Request message that have an APN field containing information relating to a request for an address has the advantage of allowing address assignment to be based on the destination network that a mobile station is requesting to communicate with.

It would have been obvious for one of ordinary skill in the art at the time of the invention, when presented with the work of Takeda et al., to combine using an Activate PDP Context Request message and a Create PDP Context Request message that have an APN field containing information relating to a request for an address, as suggested by Takeda et al., with the system and method of Bertrand et al., with the motivation being to allow address assignment to be based on the destination network that a mobile station is requesting to communicate with.

With respect to claims 8-12, 14, 28, 31, 32, 39-42, 46-49, and 51, Although Takeda et al. discloses using an APN field identifying the destination network that a mobile station wishes to communicate, the combination of Bertrand et al., and Takeda et al. does not disclose using destination network information to assign one of a private network address and a public network address to the mobile station. Applicant's admitted prior art discloses using destination network information to assign one of a private network address and a public network address to a mobile station as implicitly indicated by the destination network information **(See page 4 paragraph 8 of the Applicant's specification for reference to using information about which domain, or network, a host, or mobile station, is to be in communication with in order to determine whether to assign a private IP address or a public IP address)**. Using destination network information to assign one of a private network address and a public network address to a mobile station has the advantage of allowing a limited pool of public IP addresses to be assigned to mobile stations only when absolutely needed.

It would have been obvious for one of ordinary skill in the art at the time of the invention, when presented with the Applicant's admitted prior art, to combine using destination network information to assign one of a private network address and a public network address to a mobile station, as suggested by the Applicant's admitted prior art, with the system and method of Bertrand et al. and Takeda et al., with the motivation being to allow a limited pool of public IP addresses to be assigned to mobile stations only when absolutely needed.

With respect to claim 13, Bertrand et al. discloses sending the Create PDP Context Request message from the SGSN to a GGSN and from the GGSN to the BG (See column 5 lines 5-67 and Figure 1 of Bertrand et al. for reference to the SGSN sending a Create PDP Context Request messages to a GGSN that forwards the message to a Radius server (RS), which is a BG, in response to the SGSN receiving the Activate PDP Context Request). Bertrand et al. also discloses receiving the Create PDP Context Response message at the GGSN from the BG and at the SGSN from the GGSN (See the abstract and column 5 lines 16-67 of Bertrand et al. for reference to sending a Create PDP Context Response message from the RS through the GGSN to the SGSN containing information assigning the address).

With respect to claims 35, 43, and 50, Bertrand et al. discloses that address is one of an IPv4 or IPv6 network address (See column 3 lines 2-11 of Bertrand et al. for reference to assigned addresses being IP addresses, which at the time of the invention, are in the form of IPv4 or IPv6 network addresses).

With respect to claims 36 and 44, Bertrand et al. discloses that the network is a GPRS communications network (See column 1 lines 7-11 for reference to the system being a GPRS communications system).

4. Claims 37 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bertrand et al., in view of Takeda et al., and Applicant's admitted prior art as applied to claims 1-6, 8-18, 20-26, 28-29, 31-36, and 39 above, and further in view of Boudreaux (U.S. Pat. 6466556 B1).

With respect to claims 37 and 45, the combination of Bertrand et al., Takeda et al., and Applicant's admitted prior art does not disclose using a Universal Mobile Telecommunications System.

With respect to claims 37 and 45, Boudreaux, in the field of communications discloses using a Universal Mobile Telecommunications System (**See column 1 lines 48-61 of Boudreaux for reference to using a Universal Mobile Telecommunications System**). Using a Universal Mobile Telecommunications System has the advantage of using a widely accepted and used communication system architecture.

It would have been obvious for one of ordinary skill in the art at the time of the invention, when presented with the work of Boudreaux, to combine using a Universal Mobile Telecommunications System, as suggested by Boudreaux, with the system and method of Bertrand et al., Takeda et al., and Applicant's admitted prior art, with the motivation being to use a widely accepted and used communication system architecture.

Response to Arguments

5. Applicant's arguments filed 12/12/07 have been fully considered but they are not persuasive.

In response to Applicant's argument that the combination of Bertrand et al., Takeda et al., and the Applicant's admitted prior art, does not render obvious the claim

limitation stating, "the Activate PDP Context Request message having an APN field containing information that explicitly indicates requesting either a private network address or a public network address be assigned to the mobile station", the Examiner respectfully disagrees. First, it is noted that the above quoted limitation is broader than the Applicant argues. It appears the Applicant believes the above quoted limitation to be equivalent to a limitation requiring the APN field to have information that explicitly states that a private network address is requested instead of a public network address or to have information that explicitly states that a public network address is requested instead of a private network address; however, the Examiner disagrees with this narrow interpretation of the claim limitation. Since an address must be either a public address or a private address, any APN field information that requests an address does explicitly indicate requesting either a private network address or a public network address, as claimed. As shown in the rejections above, Takeda et al. discloses an Activate PDP Context Request message that has an APN field containing information that indicates requesting an address to be assigned to a mobile station (See pages 2-3 paragraphs 26-27, page 5 paragraphs 71-72, pages 5-6 and 89-97, and Figure 5 of Takeda et al. for reference to an Activate PDP Context Request message that has an APN field containing information requesting an address for a mobile terminal if no address is allocated to the mobile terminal). The address being requested in Takeda et al. must be either a public network address or a private network address, thus, the APN field information of Takeda et al. does explicitly indicate requesting either a private network address or a public network address be assigned to the mobile station, as claimed. It is

recommended that the above quoted limitation be amended in the claims such that it is more in line with the interpretation argued by the Applicant. If there is any confusion as to how the current limitation is being interpreted by the Examiner, please call the Examiner at the telephone number listed below, in order to clear up this confusion.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason E. Mattis whose telephone number is (571) 272-3154. The examiner can normally be reached on M-F 8AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number:
10/017,398
Art Unit: 2616

Page 17

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Jason E Mattis
Examiner
Art Unit 2616

jem